

## SECTION 2

### KEY TO COMMUNITY TYPES

Below is a key to the 34 community types documented from the 14 study sites. Because of the poor documentation of riparian and wetland community types in southwestern Idaho, the key was written for the condition of the types as they were documented in the study sites. However, the key probably has broader use for vegetation in similar ecological settings throughout the region. Descriptions of the community types appear later in this section, either as CCAs (for confident types) or as a short description (for tentative types).

Instructions for use of this key:

1. Locate a sample plot which represents the stand as a whole. Avoid ecotones between communities and microsites which represent small scale disturbances. Recommended plot size for forested communities is 1000 m<sup>2</sup> (20x50m), scrub-shrub communities 250 m<sup>2</sup> (25x10m), and emergent herbaceous communities 100 m<sup>2</sup> (10x10).
2. While in the plot identify the community type by following the key. In sites that have been heavily impacted by anthropogenic factors (such as grazing), search for remnants of native vegetation. The cover values in the key may be reduced for disturbed sites.
3. Record canopy cover for all species in the plot. Validate the key by comparing plot data with written descriptions and stand tables (if available) to check for the presence of constant and characteristic species.

#### Key to major hydrologic groups

1. Sampled stand is in or adjacent to permanent water source or has saturated, subirrigated soils throughout the growing season.  
Perennial water riparian and wetland types
1. Sampled stand is in a small, internally drained basin (vernal pool) or in a stream course that has surface water only in the winter and spring or during flash floods.  
Ephemeral riparian and wetland types

#### Key to overstory perennial water dominance groups

1. *Juniperus scopulorum* dominating the overstory with at least 25% cover.  
Needle-leaved evergreen forest types
1. Not as above. 2

2. *Populus trichocarpa* or *Alnus rhombifolia* present with a canopy cover of at least 15% and not representing a sere to conifer or shrub dominated types. Broad-leaved deciduous forest types
2. Trees absent or if present with less than 15% cover or restricted to microsites. 3
3. Shrubs present with a canopy cover of at least 10%. Scrub-shrub types
3. Not as above; shrubs and trees contributing minor amounts to composition or restricted to microsites. Herbaceous species with a combined cover of at least 15%. Herbaceous types

#### Key to needle-leaved evergreen forest types

One community sampled. *Juniperus scopulorum*/Mesic forb (tentative).

#### Key to broad-leaved deciduous forest types

1. *Populus trichocarpa* with greater than 25% cover. 2
1. *Alnus rhombifolia* with greater than 25% cover. 3
2. *Salix lasiandra* with at least 25% cover. *Populus trichocarpa*/*Salix lasiandra* (CCA)
2. Not as above. *Populus trichocarpa*/*Symphoricarpos albus* (CCA)
3. *Cornus sericea* with at least 15% cover. *Alnus rhombifolia*/*Cornus sericea* (tentative)
3. *Cornus sericea* absent. *Alnus rhombifolia*/*Philadelphus lewisii* (CCA)

#### Key to scrub-shrub types

1. Willows with at least 25% cover. Willow types
1. Willows absent or with less than 25% cover. Mixed scrub-shrub types

#### Key to willow types

1. *Salix exigua* with greater cover than any of the other willow species. 2
1. Not as above. 3
2. Understory poorly developed or barren due to annual scouring or recent colonization by *S. exigua*. *Salix exigua*/Barren (CCA)
2. Mesic graminoids including *Carex lanuginosa*, *C. sheldonii*, *Eleocharis palustris*, or *Phalaris arundinacea* with at least 25% cover. *Salix exigua*/Mesic graminoid (CCA)
3. *Salix lasiandra* the dominant willow and alone or in combination with other shrubs with at least 25% cover. *Salix lasiandra*/*Cornus sericea* (tentative)
3. Not as above. 4

4. *Salix lutea* the dominant willow and alone or in combination with other shrubs with at least 15% cover. *Salix lutea* (tentative)
4. *Salix lasiolepis* the dominant willow and alone or in combination with other shrubs with at least 15% cover. *Salix lasiolepis* cover type (tentative)

### Key to mixed scrub-shrub types

1. *Betula occidentalis* the dominant shrub with at least 15% cover. 2
1. Not as above. 3
2. *Philadelphus lewisii* and *Rhus rydbergii* alone or in combination with at least 10% cover. *Betula occidentalis/Philadelphus lewisii* (tentative)
2. Mesic forbs, *Smilacina stellata* being the most constant, at least 25% cover. *Betula occidentalis/Mesic forb* (CCA)
2. *Poa pratensis* at least 25% cover. *Betula occidentalis/Poa pratensis* (CCA)
3. *Alnus incana* with at least 25% cover. *Alnus incana/Cornus sericea* (CCA)
3. Not as above
4. Tall *Prunus virginiana* the dominant shrub with at least 40% cover. 5
4. Not as above. 6
5. *Elymus glaucus* or *Poa pratensis* alone or in combination with at least 25% cover. *Prunus virginiana/Elymus glaucus* (tentative)
5. Not as above; shrubs and vines, including *Rosa woodsii* and *Clematis ligusticifolia*, alone or in combination with at least 25% cover. *Prunus virginiana* (tentative)
6. *Cornus sericea* with at least 25% cover. Understory barren due to shading, annual scouring or absence of soil development. *Cornus sericea* (CCA) 7
6. Not as above
7. *Crataegus douglasii* with at least 25% cover. *Crataegus douglasii/Rosa woodsii* (tentative) 8
7. Not as above.
8. *Philadelphus lewisii* and *Cornus sericea* codominate in nearly equal amounts, with combined cover of at least 50%. *Philadelphus lewisii* (tentative) 9
8. Not as above.
9. *Artemisia tridentata* var. *tridentata* with at least 10% cover. *Artemisia tridentata* var. *tridentata/Elymus cinereus* (CCA)
9. *Sarcobatus vermiculatus* with at least 10% cover. *Sarcobatus vermiculatus/Distichilis stricta* (CCA)

### Key to herbaceous types

1. *Carex utriculata* (*C. rostrata*) with at least 50% cover or the dominant species. *Carex utriculata* (CCA) 2
1. Not as above.
2. *Carex sheldonii* with at least 25% cover or the dominant species. *Carex sheldonii* (tentative) 3
2. Not as above.
3. *Scirpus acutus* with at least 25% cover or the dominant species. *Scirpus acutus* (CCA) 4
3. Not as above.
4. *Scirpus pallidus* with at least 25% cover or the dominant species. *Scirpus pallidus* (tentative) 5
4. Not as above.
5. *Scirpus pungens* with at least 25% cover or the dominant species. *Scirpus pungens* (CCA)
5. *Camassia quamash* with at least 25% cover or the dominant species. *Camassia quamash* seep (CCA)

### Key to ephemeral riparian and wetland types

1. *Artemisia cana* with at least 15% cover. 2
1. Not as above. 3
2. *Muhlenbergia richardsonis* dominates a sparse ground cover. *Artemisia cana/Muhlenbergia richardsonis* (CCA)
2. Not as above. A diversity of graminoids, including *Carex douglasii*, *Festuca idahoensis*, and *Poa nevadensis*, alone or in combination with at least 25% cover. *Artemisia cana/Dry graminoid* (tentative)
3. *Artemisia papposa* with at least 5% cover. *Artemisia papposa* ephemeral wetland (tentative) 4
3. Not as above.
4. *Artemisia ludoviciana* dominates ephemeral stream course with at least 25% cover. *Artemisia ludoviciana* (tentative) 5
4. Not as above.
5. *Danthonia californica* dominates ephemeral stream course with at least 25% cover. *Danthonia californica* (tentative) 6
5. Not as above.

6. Vernal pool or lake where *Eleocharis palustris* is present.  
*Eleocharis palustris* vernal pool (tentative)
6. Vernal pool or lake where *Lepidium davisii* is present.  
*Lepidium davisii* vernal pool (tentative)

## COMMUNITY TYPE DESCRIPTIONS

### Community Characterization Abstracts

#### **POPULUS TRICHOCARPA/SALIX LASIANDRA**

COMMON NAME            Black Cottonwood/Pacific Willow

PHYSIOGNOMIC TYPE    Forest

SIMILAR COMMUNITIES Hansen *et al.* (1995) described the *Populus trichocarpa*/Recent alluvial bar community type in Montana that is closely related to this association (Crowe and Clausnitzer 1997).

RANGE            This type was originally described from the Blue and Wallowa mountains of Oregon (Crowe and Clausnitzer 1997) and sampled in adjacent west-central Idaho.

SOILS            Soils are derived from mixed alluvial parent material and the substrate is river gravel and cobble. Total rooting depth is 30 cm and depth to water table is 35 cm, while depth to mottling is 15 cm (Crowe and Clausnitzer 1997).

ENVIRONMENTAL DESCRIPTION    This type is found on low to mid-elevation alluvial bars and in abandoned channels of major rivers and streams. Sampled stands are in narrow to broad (100-300 feet), low gradient (1-3%), trough- or flat-shaped valleys. Stands develop on coarse alluvial deposits of sand, gravel, cobbles, and boulders. Soil surface cover can be as high as 70% bare ground, gravel and rock due to annual scouring from adjacent watercourse.

#### MOST ABUNDANT SPECIES

Strata	Species
Tree Canopy	<i>Populus trichocarpa</i>
Tall Shrub	<i>Salix lasiandra</i>
Herbaceous	<i>Elymus glaucus</i> , <i>Poa pratensis</i> , <i>Equisetum hymenale</i>

VEGETATION DESCRIPTION    *Populus trichocarpa*, *Salix lasiandra*, and *Salix lutea* are pioneering trees and shrubs on coarse-textured alluvial surfaces along major streams and rivers. Most of the stands have cottonwood seedlings and saplings as potential overstory. Because of

continued disturbance from seasonal flooding, development into mature stands is probably rare. Conifer regeneration may be present but will not develop unless protected from the annual cycle of scouring, flooding, and ice damage on these sites. Shade-intolerant Pacific willow is usually well represented to abundant or yellow willow is well represented. Pioneering forbs are common and introduced rhizomatous grasses are occasionally abundant (Crowe and Clausnitzer 1997).

**WILDLIFE VALUES** This type provides important habitat for a variety of wildlife species. Songbirds, beaver, and deer are the prominent users of this habitat (Crowe and Clausnitzer 1997).

**OTHER NOTEWORTHY SPECIES** No information.

**ADJACENT COMMUNITIES** Adjacent upland communities include Douglas-fir, grand fir, ponderosa pine, and bitterbrush associations. The most common adjacent riparian community is *Populus trichocarpa/Symphoricarpos albus* (Crowe and Clausnitzer 1997).

**CONSERVATION RANK** G3 S1

**SUCCESSION AND MANAGEMENT** The *Populus trichocarpa/Salix lasiandra* type is continually disturbed by spring floods from snowmelt. This is the probable cause of low vegetative ground cover. The one stand sampled in Idaho was thoroughly burned in 1986; regeneration of black cottonwood and willow species was vigorous. This type is early-successional, establishing on fresh alluvial bar deposits and scoured floodplains. Annual flooding maintains the community.

Domestic livestock may browse juvenile black cottonwood heavily, affecting long-term stand dynamics (Hansen *et al.* 1995). This community aids stabilization of streamside soils. As stands of this type mature, they provide shade and woody debris to maintain fish habitat (Crowe and Clausnitzer 1997).

**CLASSIFICATION COMMENTS** Classification is based on 4 stands in Oregon and one in Idaho.

**EDITION** 97-12-18

**EDITION AUTHOR** B. Moseley

### ***POPULUS TRICHOCARPA/SYMPHORICARPOS ALBUS***

**COMMON NAME** Black Cottonwood/Common Snowberry

**PHYSIOGNOMIC TYPE** Forest

**SIMILAR COMMUNITIES** The similar *Populus trichocarpa*/*Symphoricarpos albus*/*Poa pratensis* community type is described for central Oregon as successional to ponderosa pine (Kovalchik 1987).

**RANGE** This type has been described with plot data from the Blue and Wallowa mountains of northeastern Oregon and the Coeur d'Alene River drainage in northern Idaho (Moseley and Bursik 1994; Crowe and Clausnitzer 1997). One stand has been observed in west-central Idaho.

**SOILS** The community occupies deep alluvial soils of fine-textured surface horizons with sand, gravel and rocks below.

**ENVIRONMENTAL DESCRIPTION** This type occurs on mid-elevation, gentle terraces along major rivers and streams in the mountains of central and northern Idaho and adjacent Oregon. Valley widths are usually broad (300-1,000 feet), but can be as narrow as 100 feet wide. Valleys are V-, flat- and trough-shaped with moderate gradients (2-5%) and often with steep sideslopes. Sites are on inactive floodplains and are infrequently flooded. The water table is generally deep. Mottling was evident on only one plot from Oregon (Moseley and Bursik 1994; Crowe and Clausnitzer 1997).

#### **MOST ABUNDANT SPECIES**

Strata	Species
Tree Canopy	<i>Populus trichocarpa</i>
Tall Shrub	<i>Symphoricarpos albus</i> , <i>Crataegus douglasii</i>
Herbaceous	<i>Galium triflorum</i> , <i>Phalaris arundinacea</i> , <i>Elymus glaucus</i> , <i>Smilacina stellata</i> , <i>Poa pratensis</i>

**VEGETATION DESCRIPTION** *Populus trichocarpa* dominates the overstory, with the potential for conifers to be present in all layers. Although irregular in occurrence, conifer species such as *Pinus ponderosa*, *Abies grandis*, *Pseudotsuga menziesii*, and *Picea engelmannii*, may indicate community potential on these terrace sites. The shrub component is dominated by *Symphoricarpos albus* with a diversity of other tall and medium shrubs scattered in the stands, the most prominent being *Crataegus douglasii*, *Amelanchier alnifolia*, *Cornus stolonifera*, and *Philadelphus lewisii*. The herbaceous layer is diverse, containing many forbs and perennial grasses, including both rhizomatous and caespitose species (Moseley and Bursik 1994; Crowe and Clausnitzer 1997).

**WILDLIFE VALUES** The shrub understory of this community type provides nesting habitat and food for both nongame and game birds while the overstory is used by woodpeckers, raptors, and other birds for foraging, nesting, and roosting (Crowe and Clausnitzer 1997).

**OTHER NOTEWORTHY SPECIES** Information not available.

**ADJACENT COMMUNITIES** Northern Idaho stands are adjacent to *Tsuga heterophylla* associations (Moseley and Bursik 1994), while *Pseudotsuga menziesii* and *Purshia tridentata* associations are adjacent to stands in west-central Idaho. *Pseudotsuga menziesii*, *Pinus ponderosa*, and *Abies grandis* association occur in the adjacent uplands in Oregon (Crowe and Clausnitzer 1997).

**CONSERVATION RANK** G3 S2

**SUCCESSION AND MANAGEMENT** The *Populus trichocarpa/Symphoricarpos albus* type usually occurs on inactive floodplains, which flood only episodically. This may result in eventual succession to a conifer type, although the terrace may get washed away from lateral movement of the channel before this happens (Moseley and Bursik 1994). Wildfire may also maintain this type, as has been documented from a 1931 fire in northern Idaho (Bursik and Moseley 1994) and a 1986 fire in west-central Idaho.

Understory cottonwood and shrubs are browsed by both domestic and wild ungulates. Continuous and severe grazing results in a decline in the *Symphoricarpos albus* component, while *Poa pratensis* increases in abundance.

**CLASSIFICATION COMMENT** Classification is based on five plots throughout the mountains of northeastern Oregon (Crowe and Clausnitzer 1997), 18 plots in Spion Kop RNA along the Coeur d'Alene River (Moseley and Bursik 1994), and one plot in Goodrich Creek RNA.

**EDITION** 97-12-31

**EDITION AUTHOR** B. Moseley

### ***ALNUS RHOMBIFOLIA/PHILADELPHUS LEWISII***

**COMMON NAME** White Alder/Syringa

**PHYSIONOMIC TYPE** Forest

**SIMILAR COMMUNITIES** No information.

**RANGE** Has been described from west-central Idaho, on the Snake River and its tributaries, in Washington, Adams and Idaho Counties, Idaho (Miller 1976). Potentially occurs in neighboring regions of northeastern Oregon, but has not been described from there.

**SOILS** No Information.

**ENVIRONMENTAL DESCRIPTION** The *Alnus rhombifolia/Philadelphus lewisii* association is found in a mountainous region dissected by Hells Canyon of the Snake River and